

Personnel Assurance Program

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Personnel Assurance Program

1.0 Introduction

U.S. Department of Energy (DOE) Order 5610.11 (Nuclear Explosive Safety) establishes requirements and responsibilities for selecting and continuously evaluating individuals who perform work that affords sufficient technical knowledge of and access to nuclear explosives to enable them to cause a high-explosive or nuclear detonation or the dispersal of plutonium from a nuclear explosive. This definition is expanded to cover individuals at LLNL who control and certify fissile components for nuclear explosive-like assemblies (NELAs). This program is called the Personnel Assurance Program (PAP), and the work is known as nuclear explosive duty.

2.0 Definitions

Access. Proximity to a nuclear explosive that affords a person the opportunity to tamper with it or to cause a detonation. This definition implies hands-on work assignments.

Nuclear explosive duty. Duties that require an employee to perform work that affords both technical knowledge of and access to nuclear explosives sufficient to enable him/her to cause a high-explosive or nuclear detonation.

Nuclear explosive. Any assembly or subassembly containing fissionable or fusionable materials in proximity to main charge high-explosive parts or propellants capable of producing a nuclear detonation.

NOTE: Included in this definition are nuclear weapons and devices utilizing nuclear energy that are principally for use as or for the development of an explosive device, an explosive device prototype, an explosive test device, or a peaceful nuclear explosive.

Personnel Assurance Program (PAP). A DOE program to establish requirements, responsibilities, and documentation for screening, selecting, and continuously evaluating individuals being considered for assignment or who are assigned to nuclear explosive duties.

PAP Certification. Certification issued by DOE signifying an individual's suitability to perform nuclear explosive duties. Individuals who are certified under the PAP may perform Personnel Security Assurance Program (PSAP) duties, as described in Supplement 1.15 of this manual. However, individuals having PSAP authorization may not perform nuclear explosive duties. An individual may not be simultaneously enrolled in both the PAP and PSAP.

3.0 Objective

The objective of the PAP is to minimize the possibility of a high-explosive or nuclear detonation resulting from inadvertent or unauthorized personnel actions. This objective is accomplished through a documented program of selecting, instructing, training, and reviewing individuals to ensure their suitability and reliability for nuclear explosive duty.

4.0 Responsibilities

4.1 LLNL Director

The Director of LLNL has delegated administrative responsibility for the PAP to the Associate Director for Plant Operations.

4.2 Associate Director for Plant Operations

The Associate Director for Plant Operations appoints a PAP coordinator, who is responsible for implementing the program and performing the duties described in this document.

4.3 Department Heads and Division Leaders

Scientific and engineering department heads and division leaders are responsible for ensuring that individuals certified for nuclear explosive duty understand the PAP tasks assigned to them and possess the necessary mental and physical capabilities to take positive measures to prevent an accidental or unauthorized high-explosive or nuclear detonation. These department heads and division

leaders are responsible for (1) designating supervisory personnel who in turn are responsible for observing PAP individuals assigned to nuclear explosive duties and (2) ensuring that these supervisors receive the required PAP supervisor training.

Department heads and division leaders are also responsible for ensuring that at least two knowledgeable PAP-certified individuals are present during all operations that afford access to a nuclear explosive potentially capable of producing a high-explosive or nuclear detonation. Department heads and division leaders are responsible for promptly advising the PAP coordinator when an individual is no longer assigned to nuclear explosive duty.

Departments that provide the technical expertise for PAP training are responsible for ensuring that such training is periodically reviewed and updated and that training is offered at a frequency sufficient to meet PAP training needs.

Each department or division having PAP employees should maintain a PAP file containing selection records and reviews of each individual certified for nuclear explosive duty.

4.4 Health Services Department

Health Services is responsible for ensuring that PAP medical assessments are performed, as specified in DOE Order 5610.11. Examinations are required prior to initial PAP certification and annually during the period of PAP certification. Health Services is responsible for either performing or providing technical oversight of contractors and services used in the performance of medical assessments, including designating the clinical psychologists to be used in PAP psychological assessments.

Health Services is responsible for ensuring that physicians and clinical psychologists who perform or who supervise other health care professionals who perform PAP medical examinations or psychological assessments have received the required PAP training.

4.5 Safeguards and Security Department

LLNL Safeguards and Security is responsible for identifying all LLNL security violations of PAP employees and applicants for PAP certification. These evaluations are made initially upon request from the PAP coordinator and annually thereafter.

4.6 PAP Coordinator

The PAP coordinator is responsible for routing requests for PAP certification and annual recertification for reviews and approvals, as described in

this procedure, and for maintaining a consolidated file to substantiate this process. The PAP coordinator maintains a current roster of individuals certified to perform PAP duties and distributes updated rosters to affected departments and divisions. The PAP coordinator assists the DOE San Francisco Field Office (DOE/SF) in the verification that all certification and qualification requirements for each individual performing nuclear explosive duty have been met.

The PAP coordinator is responsible for ensuring that nominees for initial PAP certification have satisfactorily completed a preassignment drug test and that PAP-certified individuals are enrolled in a program to test for illegal drugs annually on a random selection basis. PAP-certified individuals are randomly selected and tested at least once during each program year. The PAP coordinator administers the random selection and notification process and monitors the tests to ensure that those who are scheduled for testing complete the test. The PAP coordinator is advised of pass/fail drug test results by Health Services and is responsible for reporting these results as described in this procedure.

The PAP coordinator is responsible for promptly advising DOE/SF of the removal by LLNL of a PAP-certified individual from nuclear explosive duty. DOE/SF reviews selected PAP records retained by LLNL.

5.0 General Procedure

Supervisors select individuals who by observation are considered qualified for nuclear explosive duty. The supervisor then nominates the individuals to his/her department head or division leader.

Department heads or division leaders review the PAP certification or annual recertification recommendations and, if they concur, submit the names of nominees to the PAP coordinator. The PAP coordinator initiates reviews with Health Services and LLNL Safeguards and Security and requests an informal DOE/SF review. After internal LLNL reviews and approvals, the PAP coordinator processes a formal request for certification or recertification to DOE/SF and advises the department or division of the outcome.

While on duty, PAP-certified employees are subject to the LLNL alcohol and substance abuse policies. These policies provide for supervisory behavioral observation, drug and alcohol testing of employees if on-the-job impairment is detected,

and medical evaluations in cases of deteriorating performance where substance abuse or emotional problems may be involved.

In addition, PAP-certified employees are subject to annual random drug testing and to work-related rules governing the consumption of alcohol.

6.0 Training

Department heads ensure that employees are properly trained and qualified prior to and during PAP assignments through initial training and, when appropriate, refresher training. The effectiveness of training may be evaluated through written or oral examinations or by conducting and documenting drills and exercises to evaluate training in key areas. Hands-on training with non-nuclear configurations may be used for initial training or to ensure PAP employees remain proficient in the duties for which they are qualified. Proficiency in subjects related to nuclear explosive duty is assured through written or oral examinations, as appropriate. Individual records of PAP training and examinations are maintained within the employee's department or division.

In advance of initial PAP certification or annual recertification, home departments or divisions advise the PAP coordinator of required PAP training and retraining using form LL-3881 (Personnel Assurance Program Certification/Recertification Request Form). As individual training requirements are satisfied, rosters or other evidence of completed training are forwarded to the PAP coordinator prior to certification or annual recertification.

6.1 Individual Training

Department heads ensure that the technical content of PAP training is periodically reviewed and updated as necessary.

6.1.1 Briefings and General Training

Prior to initial PAP certification and annually for PAP recertification, individuals are given orientation briefings covering, at a minimum, the following subjects:

- The purpose, policies, objectives, and responsibilities of the PAP.
- The purpose, objective, and responsibilities of the two-person concept for operations.
- Responsibilities associated with custody of, control of, and access to nuclear explosives.
- General safety rules.

- Immediate-action and emergency procedures associated with nuclear explosive operations.

6.1.2 Task-Specific Training

Departments or divisions employing PAP personnel are responsible for developing the task-specific training requirements and for ensuring this training is conducted as required. The records for task-specific training are kept within the employee's department. Task-specific training consists, as a minimum, of the following:

- Operational procedures to be performed.
- Proper use of equipment and tools required for nuclear explosive operations.
- Use of specific nuclear explosive safety rules associated with nuclear explosive operations.

6.2 Supervisor Training

Designated supervisors of PAP personnel receive a PAP orientation briefing by department heads or division leaders; this briefing is similar in content to that provided to individual PAP certification nominees. Records are kept of these briefings within the department or division, and a copy is sent to the PAP coordinator.

In addition, designated PAP supervisors receive special training on the following PAP subjects, as a minimum:

- Orientation on the early identification of behavior, attitude, and/or job performance that indicates a risk of degradation in reliability or judgment.
- Orientation on the early identification of alcohol or drug abuse.
- Orientation on the importance of the process for timely reporting to appropriate personnel of PAP concerns.

6.3 Physician and Clinical Psychologist Training

The PAP coordinator will assure that PAP physicians and designated PAP clinical psychologists receive a PAP orientation briefing. This briefing is similar in content to that provided to individual PAP certification nominees. In addition, they are provided orientation briefings and/or tours on nuclear explosive operations and the work environment in areas where nuclear explosive operations are performed.

7.0 Certification, Recertification, and Decertification

7.1 Nomination for Initial PAP Certification

Employees who are requested by supervision to participate in the PAP and who refuse must do so in writing using form LL-3881.1. The supervisor receiving the refusal shall also sign the form.

Department heads or division leaders must ensure that individuals nominated for nuclear explosive duty are fully qualified and suitable for these duties by conducting a thorough review of each individual's education, pre-hire experience, related training and work experience, attendance and leave records, performance appraisals, disciplinary actions, records of reliability, and motivation. They must certify that no disqualifying information about the nominee exists in the department or division personnel file.

Individuals nominated should normally have been employed at LLNL for a minimum of 1 year; exceptions may be granted for related experience at other DOE facilities. Conclusions regarding suitability of the nominee and a listing of required training that the nominee has completed are recorded on form LL-3881 by the department or division. The applicant acknowledges that he/she has been interviewed and briefed on the purpose, policies, objectives, and requirements of the PAP; the two-person concept for operations; and the responsibilities associated with custody, control, and access to nuclear explosives. The applicant reads and signs the form entitled "Authorization for Use or Disclosure of Personnel Information and Records."

After the forms are signed by the applicant, the originals are sent to the PAP coordinator. The individual's department or division should retain a file copy to substantiate the initial review.

Upon request by the PAP coordinator, DOE/SF Safeguards and Security performs an informal preassessment of a PAP nominee's suitability for initial PAP certification. If DOE/SF Safeguards and Security advises the PAP coordinator that the nominee is unsuitable, form LL-3881 is returned to the department head or division leader. An explanation of unsuitability shall be included.

7.2 Assessments for Initial PAP Certification

If no disqualifying information is found by DOE/SF in its informal assessment of the nominee's suitability, the PAP coordinator is informally advised by DOE/SF and a memo is distributed by the PAP coordinator requesting a medical assessment

from Health Services and security assessments from both LLNL Safeguards and Security and DOE/SF Safeguards and Security.

7.2.1 Medical Assessment

The Health Services Medical Director ensures that preplacement assessments are performed to determine the nominee's emotional and mental stability and physical capability to perform nuclear explosive duty in the PAP. These assessments include a comprehensive physical examination, psychological assessment, and evaluation of drug abuse. An applicant for a PAP position is administered a preassignment drug test before final assignment.

The physical examination includes an evaluation of alcohol abuse if alcohol abuse is suspected. The psychological assessment consists of, as a minimum, a generally accepted psychological test (such as Minnesota Multiphasic Personality Inventory or 16 Personality Factors Test) and a structured interview by a designated clinical psychologist. The evaluation of drug abuse consists of testing the individual for the use of illegal drugs using the procedure for collection, analysis, reporting, and recordkeeping presented in Appendix A. Health Services maintains appropriate files to substantiate each part of this medical assessment.

7.2.2 Security Assessment

The PAP coordinator requests LLNL Safeguards and Security to conduct a personnel assurance file review and report to PAP administration any security infractions acquired during the individual's employment.

LLNL Safeguards and Security assists PAP administration in establishing initial PAP certification files by providing key information concerning the security clearance, such as the type of clearance, clearance grant date, and name of the individual granting the clearance.

7.2.3 PAP Coordinator File Review

The PAP coordinator verifies that the nominee has completed the required PAP training, passed a preassignment drug test, satisfactorily completed a medical examination, and satisfactorily completed a psychological assessment.

7.3 Request for DOE Certification

Upon satisfactory completion of all required LLNL reviews and briefings, the PAP coordinator formally requests DOE certification using the form entitled "Personnel Assurance Program Certification Document."

The PAP coordinator notifies the department or division involved when PAP certification is received from the DOE/SF Manager or his/her designee indicating that the individual is approved for nuclear explosive duty. The PAP coordinator periodically distributes a roster of certified individuals to LLNL departments or divisions.

7.4 Recertification

At the time of the initial PAP certification, files are established within Health Services, LLNL Safeguards and Security, and DOE/SF to perform annual updates to these respective assessments. The annual medical assessment consists of a physical examination and structured interview with a designated clinical psychologist. The PAP administrator ensures that annual drug testing is accomplished on a random basis. Departments or divisions conduct required PAP training throughout the year. As each of these requirements is satisfied, appropriate records are sent to the PAP coordinator for review and filing.

Department heads or division leaders are responsible for ensuring that all personnel in PAP are reviewed annually at least 30 days in advance of expiration of the annual DOE PAP certification. A summary of each individual's on-the-job experience and certification of all required briefings and general training completed since the time of the previous certification or recertification are recorded on form LL-3881. Copies of this form are retained in the individual's file in the department or division office, and the originals are sent to the PAP coordinator.

Upon satisfactory completion of all required LLNL reviews and briefings, the PAP coordinator formally requests DOE certification using the form entitled "Personnel Assurance Program Certification Document."

7.5 Decertification

7.5.1 Conclusion of PAP Assignment

As soon as possible, when an individual is no longer assigned to nuclear explosive duty, the department head or division leader must notify the PAP coordinator, who then notifies LLNL Safeguards and Security, Health Services, and DOE/SF so that the individual's name can be removed from the PAP list.

7.5.2 Failure to Obtain Recommendation for Recertification

If potentially disqualifying information comes to the attention of Health Services, LLNL Safe-

guards and Security, or the individual's division prior to processing a PAP recertification request to DOE, the matter is referred to the PAP coordinator. The PAP coordinator convenes a panel consisting of Health Services, LLNL Safeguards and Security, Staff Relations, and the individual's department. The panel reviews the facts in the case, using whatever resources are deemed necessary to resolve the matter, including interviewing the affected individual, and then determines whether to recommend recertification to DOE.

7.5.3 Removal from PAP Assignment

If an individual is removed from PAP duties for "cause," the DOE/SF Office of Defense Programs will be notified immediately via telephone with a written follow-up.

8.0 Alcohol Use

PAP-certified individuals are subject to LLNL's policy guidelines on substance abuse, which prohibits the use of alcohol while on duty and allows possible substance testing by Health Services.

Supervisors will direct an employee to Health Services if the following occur:

- Behavior is observed that may pose an immediate threat to the health and safety of the employee or other employees and there is cause to believe that substance abuse is a factor.
- The unauthorized use or possession of alcohol has been observed in the workplace.
- A work-related accident occurs where there is cause to believe the use of controlled substances or alcohol may have been a contributing factor.

As required by DOE Order 5610.11, if the medical professional performing a PAP medical examination has reason to suspect alcohol abuse, Health Services may elect to administer additional tests or examinations, which may include a psychological assessment. If there is reasonable indication of alcohol use in the workplace by a PAP-certified individual, Health Services may, in conjunction with other actions, place the individual on a program of unannounced tests for alcohol.

Individuals certified to perform nuclear explosive duty are required to abstain from the consumption of alcohol for at least 8 hours preceding a scheduled tour of work in which PAP duties may be performed and during such a period of work.

Employees called in to perform an unscheduled PAP working tour are required to indicate prior to reporting if they have consumed alcohol within 8 hours of the anticipated PAP duty. As a general rule, employees who have consumed alcohol within 8 hours of unscheduled PAP duty will not be requested to report. These special PAP rules regarding disclosure of use of alcohol prior to duty apply only to PAP individuals called in to perform PAP duties.

9.0 DOE Annual Review

At quarterly intervals throughout each year, DOE/SF reviews LLNL files to verify that the requirements of DOE Order 5610.11 for initial PAP certification and annual PAP recertification have been met. This process is described in DOE/SF Management Directive (MD) 5610.11 (Nuclear Explosive Safety).

10.0 Critical Duty Activities at Other Facilities

After approval for PAP certification, DOE/SF will notify LLNL and the DOE Nevada Field Office so that LLNL names can be entered on the appropriate access lists. This process is covered in DOE/SF MD 5610.11.

LLNL personnel certified in PAP are occasionally assigned to nuclear explosive duty at off-site facilities other than the Nevada Test Site (NTS). Procedures to ensure safety and define responsibility for these operations involving nuclear explosives are authorized by the cognizant DOE office and/or other government office. LLNL employees must perform their assigned duties in accordance with these procedures.

Appendix A

Drug Testing

A.1 Policy

Employees assigned to the PAP are entrusted with access to nuclear explosives or NELAs containing special nuclear materials, as defined in DOE Order 5610.11. These employees must demonstrate a high degree of personal reliability. The use or abuse of illegal or controlled substances by such employees cannot be tolerated. These employees will be drug-tested prior to assignment to the PAP and will be enrolled in a program for random drug testing after being assigned. For purposes of this appendix, the PAP will be referred to as the Program.

A.2 Purpose

This appendix describes the process used to implement preassignment and random urinalysis testing for the use of controlled substances by employees assigned to the Program.

A.3 Responsibility

The Laboratory Director will designate an individual as the Laboratory's Program drug-testing management official. This official implements the Program random drug-testing program. The Program drug-testing management official is responsible for ensuring compliance with this appendix and that drug-testing information and records of a sensitive nature are maintained in strict confidence.

The medical review officer (MRO), an LLNL Health Services physician with specialized training, will review and interpret the results of the drug tests.

A.4 Preassignment and Random Drug-Testing Program

Applicants for a Program position subject to random drug testing will be tested for the use of illegal drugs before final assignment to such a position. While active in the Program, individuals will be tested at least annually for illegal drugs. Selection for this testing will be on a random, unannounced basis. After testing, each individual's name will be returned to the testing population and subject to reselection.

A.5 Testing Frequency

The Program drug-testing management official will, in conjunction with Health Services, schedule dates and times for specimen collection. The schedule will accommodate annual testing of all Program personnel and provide an opportunity for random testing on any regularly scheduled workday. The schedule will not be released to the testing population. Program employees selected for testing who are on authorized sick or vacation leave or official travel will have their names replaced in the testing population. Program employees with permanent work assignments at NTS will be tested at NTS using similar collection procedures as those used at LLNL. All test results will be reviewed by the MRO at LLNL.

A.6 Substances for Which Drug Testing Will be Performed

Urinalysis testing will be performed to identify the use of the following drugs or classes of drugs:

- Marijuana,
- Cocaine,
- Opiates,
- Phencyclidine (PCP), and
- Amphetamines.

Other drugs or classes of drugs may be added at the direction of the Laboratory Director. A minimum of 90 days notice will be provided to affected personnel of changes to this section. Testing for cause may be performed for other drugs or classes of drugs or alcohol.

Testing will be conducted at a laboratory certified by the National Institute on Drug Abuse (NIDA). All urine samples will be tested with an initial immunoassay screening test. Samples determined as positive for drug or drug metabolite content in this test shall be confirmed using gas chromatography/mass spectrometry. Testing procedures, cutoff levels, and qualifications of the testing laboratory that performs the analyses are published in *Federal Register*, Vol. 53, No. 69, p. 11979 (herein referred as the NIDA guidelines).

A.7 Testing Procedures

Program employees will be notified of selection for drug testing through their supervisors or a designated contact person. Program employees notified to report for a drug screen test will be given a reasonable response time in which to appear at the designated collection facility. A response time of 1 hour will be allowed for employees notified at LLNL and Mercury, Nevada. Program employees notified at other locations at NTS or at Site 300 will be allowed 1 hour plus a reasonable driving time from their location to the collection site. Notified employees will be required to sign an acknowledgment of notification on which has been recorded the notification time, scheduled test time, and location of the collection facility to which the employee must report for random testing.

An authorization to release information is required from the employee before any testing is done. The individual will be given a copy of the chain-of-custody form after specimen collection.

Specimen collection and chain-of-custody procedures will be performed in accordance with the NIDA guidelines. Collection of the specimen will not be observed unless there is reason to believe that the individual will alter or substitute the specimen to be provided. The residual portion of each confirmed positive sample is saved by the testing laboratory for 1 year to allow for reanalysis.

The employee will be advised by supervision that if a Program employee refuses to report, fails to report to the designated collection site by the time requested, or refuses to cooperate with the collection site person after reporting for testing, such behavior will result in an investigation and may result in corrective action. If failure to cooperate results in the test not being conducted, an inference will be drawn that the employee would have tested positive.

A.8 Test Results

The NIDA-certified laboratory performing the analysis will normally provide test results to the MRO within 5 working days. For negative results, the MRO will certify to the Program drug-testing management official that the test was passed. The Program drug-testing management official will promptly provide written notification to the Program employee of the passed test.

For reported positive results, prior to making a final decision to certify that the test was failed, the MRO will give the individual an opportunity to discuss the test result. If the individual is not immediately available, the MRO may impose temporary medical work restrictions pending a final decision. If the individual is not at work, the MRO will request of supervision that the individual not be allowed to return to his/her Program assignment until released to do so by Health Services. Employees

who have taken prescription drugs or have undergone medical or dental procedures should be prepared to produce evidence of a valid prescription or other medical information for review by the MRO in the event that a positive result is received from the laboratory. The MRO will review all medical records made available by the tested individual to determine if a confirmed positive test could have resulted from legally prescribed medication or a medical or dental procedure; if so, the test result would be reported as passed.

If a medical explanation for the positive result is not found, the MRO will certify that the test was positive and will notify the Program drug testing management official of the results using the form entitled "Random Drug Test Notification." The Program drug-testing management official will notify the individual's supervisor, LLNL Safeguards and Security, Staff Relations, and DOE. The individual's supervisor will immediately remove the individual from Program assignments. The employee will be subject to existing personnel policies and procedures, as appropriate.

A.9 Records

Laboratory reports of drug tests will be maintained in a locked repository in Health Services. Access to the repository will be restricted to Health Services personnel assigned to administer the drug testing program. Employees may review the contents of their file upon receipt of a signed release form in accordance with state privacy regulations. These records are protected by the Privacy Act of 1974, as amended. Test results will be released to other LLNL departments or DOE only with the individual's written consent.

Health Services will provide certification of results to the Program drug-testing management office. The certifications will be stored in a locked file and made available to Laboratory supervision and management on a limited, need-to-know basis for the purpose of determining whether or not tests or assessments were passed and the dates of these pass or fail certifications.